

First ISCCP Regional
Experiment (FIRE) Cirrus
2 Portable Automated
Mesonet Station (PAMS)
Langley DAAC Data Set
Document



Summary:

The First ISCCP Regional Experiments have been designed to improve data products and cloud/radiation parameterizations used in general circulation models (GCMS). Specifically, the goals of FIRE are (1) to improve basic understanding of the interaction of physical processes in determining life cycles of cirrus and marine stratocumulus systems and the radiative properties of these clouds during their life cycles and (2) to investigate the interrelationships between the ISCCP data, GCM parameterizations, and higher space and time resolution cloud data.

To-date, four intensive field-observation periods were planned and executed: a cirrus IFO (October 13-November 2, 1986); a marine stratocumulus IFO off the southwestern coast of California (June 29-July 20, 1987) a second cirrus IFO in southeastern Kansas (November 13-December 7, 1991); and a second marine stratocumulus IFO in the eastern North Atlantic Ocean (June 1-June 28, 1992). Each mission combined coordinated satellite, airborne, and surface observations with modeling studies to investigate the cloud properties and physical processes of the cloud system.

This document provides information for the FIRE_CI2_PAMS data set.

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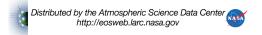
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1. Data Set Overview:

Data Set Identification:

FIRE_CI2_PAMS:

First ISCCP Regional Experiment (FIRE) Cirrus 2 Portable Automated Mesonet Station (PAMS) Data (FIRE_CI2_PAMS)



Data Set Introduction: The PAMS data set was collected during the FIRE Cirrus 2 experiment from Nov. 13, 1991 to Dec. 7, 1991 at six sites. There are 25 data files for each of 6 sites where PAMS data were collected. **Objective/Purpose: Summary of Parameters:** Humidity Irradiance Mixing Ratio Pressure Temperature Wind Direction Wind Speed **Discussion: Related Data Sets:** 2. Investigator(s): Investigator(s) Name and Title: Title of Investigation: First ISCCP Regional Experiment (FIRE) **Contact Information:** David O'C Starr NASA Goddard Space Flight Center Code 913.0 Greenbelt, MD 20771 USA Phone: (301) 286-9129 FAX: ... Email: STARR@CLIMATE.GSFC.NASA.GOV 3. Theory of Measurements: 4. Equipment: **Sensor/Instrument Description:**

Source/Platform Mission Objectives:

Collection Environment:

Source/Platform:

GROUND STATION

•••
Key Variables:
Humidity Irradiance Mixing Ratio Pressure Temperature Wind Direction Wind Speed
Principles of Operation:
Sensor/Instrument Measurement Geometry:
Manufacturer of Sensor/Instrument:
Sensor/Instrument:
PAMS
Calibration:
Specifications:
Tolerance:
•••
Frequency of Calibration:
•••
Other Calibration Information:

5. Data Acquisition Methods:
6. Observations:
Data Notes:
Field Notes:
7. Data Description:
Spatial Characteristics:
Spatial Coverage:

Max Lat

Data Set Name Min Lat

Max Lon

Min Lon

FIRE_CI2_PAMS 35.66	38.01	-97.16	-95.09
Spatial Coverage Map:			
Spatial Resolution:			
Projection:			
Grid Description:			
Temporal Characte	eristics:		
Temporal Coverage:			
Data Set Name	Begin Date	End Date	
FIRE_CI2_PAMS	11-13-1991	12-07-1991	
Temporal Coverage Ma	ар:		
Temporal Resolution:			
Data Characteristic	cs:		
Parameter/Variable:			
Each record has an obs	ervation # (record #), 12	2 variables, and 12 qua	lity flags (QA) for e

units are listed in order below.

Variable Name:

- pressure (mb)
- temperature (C)
- wet bulb temperature (C)
- relative humidity (percent)
- mixing ratio (g/kg)
- potential temperature (K)
- u-wind component (m/s)
- v-wind component (m/s)
- avg. wind speed (m/s)
- wind direction (degrees)
- maximum wind speed within the minute (m/s)
- downward solar irradiance (W/m**2)

Variable Description/Definition:

See above



Unit of Measurement:
See above.
Data Source:
Data Range:
Sample Data Record:
8. Data Organization:
Data Granularity:
A general description of data granularity as it applies to the IMS appears in the <u>EOSDIS Glossary</u> .
Data Format:
The data are in ASCII format.
9. Data Manipulations:
Formulae:
Derivation Techniques and Algorithms:
Data Processing Sequence:
Processing Steps:
Processing Changes:
Calculations:
Special Corrections/Adjustments:

Calculated Variables:
Graphs and Plots:
Images are not available for this data set.
10. Errors:
Sources of Error:
Quality Assessment:

Data Validation by Source:

Distributed by the Atmospheric Science Data Center http://eosweb.larc.nasa.gov

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Confidence Level/Accuracy Judgement:

Measurement Error for Parameters:
Additional Quality Assessments:

Data Verification by Data Center:

11. Notes:
Limitations of the Data:
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Known Problems with the Data:
···
Usage Guidance:
···
Any Other Relevant Information about the Study:
···
12. Application of the Data Set:
13. Future Modifications and Plans:
There are no plans to modify these data sets.
14. Software:
Software Description:
Sample read software is available for this data set.
Software Access:
The software can be obtained through the Langley DAAC. Please refer to the contact information below. The software can also be obtained at the same time the user is ordering this data set.

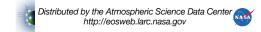
15. Data Access:

Contact Information:

Langley DAAC User and Data Services Office NASA Langley Research Center Mail Stop 157D Hampton, Virginia 23681-2199 USA

Telephone: (757) 864-8656 FAX: (757) 864-8807

E-mail: support-asdc@earthdata.nasa.gov



URL: http://eosweb.larc.nasa.gov

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Procedures for Obtaining Data:

The Langley DAAC Information Management System (IMS) is an on-line system that features a graphical user interface (GUI) that allows to query the Langley DAAC data set holdings, to view pre-generated browse products, and to order specific data products. Users may also request data by letter, telephone, electronic mail (INTERNET), or personal visit.

The Langley DAAC User and Data Services (UDS) staff provides technical and operational support for users ordering data. The Langley DAAC Handbook is available in a postscript file through the IMS for users who want detailed information about the Langley DAAC holdings. Users may also obtain a copy by contacting:

Langley DAAC User and Data Services Office NASA Langley Research Center Mail Stop 157D Hampton, Virginia 23681-2199 USA

Telephone: (757) 864-8656 FAX: (757) 864-8807

E-mail: support-asdc@earthdata.nasa.gov

URL: http://eosweb.larc.nasa.gov

Data Center Status/Plans:

The Langley DAAC will continue to archive this data. There are no plans to reprocess.

16. Output Products and Availability:

There are no output products available at this time.

17. References:

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18. Glossary of Terms:

EOSDIS Glossary.

19. List of Acronyms:

NASA - National Aeronautics Space Administration URL - Uniform Resource Locator

EOSDIS Acronyms.

20. Document Information:

Document Revision Date:

October 07, 1996; November 24, 1997; June 2002 (non-science)

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Citation:

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Document Curator:

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